

IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) In an interactive information distribution system including a network of provider equipment and subscriber equipment, apparatus comprising:

a plurality of ~~servers~~ head-ends coupled to ~~respective~~ subscriber equipment via an access network, the head-ends coupled to each other via an inter-server network, each of said ~~the servers~~ head-ends comprising:

a server for distributing requested video assets to requesting subscriber equipment via the access network;

a storage having a primary storage partition for storing frequently requested video assets, ~~each of said servers having and~~ a secondary storage partition for storing ~~a portion of~~ infrequently requested video assets, ~~said the~~ infrequently requested video assets being ~~divided and selectively~~ distributed amongst said ~~the~~ secondary partitions of said ~~the plurality of servers~~ head-ends; and

a manager for managing migration of video assets, wherein the manager tracks asset request rates and threshold rates of respective video assets;

wherein the manager, in response to an infrequently requested video asset becoming frequently requested, selects ones of the head-ends to store the frequently requested video asset and transmits the frequently requested video asset to the selected ones of the head-ends for storage in associated primary storage partitions;

wherein the manager, in response to a frequently requested video asset becoming infrequently requested, selects one of the head-ends to store the infrequently requested video asset and provides the infrequently requested video asset to the selected one of the head-ends for storage in an associated secondary storage partition.

~~a manager, coupled to each of said plurality of servers for routing video assets between said servers in response to video asset requests, and for migrating video~~

~~assets between storage partitions in response to a video asset request rate traversing a threshold rate.~~

2. (currently amended) The apparatus of claim 1, wherein:

~~said the manager allocates said video assets to at least one of said plurality of servers for storage on said primary storage partitions~~ identifies an infrequently requested video asset as becoming frequently requested when said the asset request rate ~~traverses~~ crosses above said the threshold rate; and

~~said the manager stores said video assets on said secondary storage partition~~ identifies a frequently requested video asset as becoming infrequently requested when said the asset request rate ~~does not traverse~~ crosses below said the threshold rate.

3. (currently amended) The apparatus of claim 2, wherein:

~~in response to an asset a request for a video asset received from requesting subscriber equipment, said the manager distributes to said requesting subscriber equipment~~ controls distribution of the requested video asset from a server one of the head-ends identified as storing the requested video asset to the requesting subscriber equipment.

4. (currently amended) The apparatus of claim 3, wherein said the manager comprises:

~~a content manager, coupled to said plurality of servers for tracking, inventorying and administering said asset request rate and said threshold rate for each of said video assets~~ for receiving the request for the video asset and determining whether the requested video asset is stored locally in the storage of that head-end at which the video asset request is received or stored remotely in the storage of a different head-end;

~~a stream session manager, coupled to said plurality of servers and linked with said content manager, for distributing~~ for directing the associated server to distribute streams of video assets to subscriber equipment requesting said the video assets; and

a content session manager, ~~coupled to said content manager and said plurality of servers, for receiving~~ responding to video asset requests forwarded from said stream session manager via said content manager managers of other ones of the head-ends.

5. (cancelled)

6. (currently amended) The apparatus of claim ~~[[5]]~~ 4, wherein a server, identified by said content manager of a local head-end at which a video asset request is received, as storing a in response to determining that a requested video asset is stored locally, notifies the stream session manager provides said to deliver the requested video asset to the local server for transmission by the local server to the requesting subscriber equipment via said the access network.

7. (currently amended) The apparatus of claim ~~[[6]]~~ 4, wherein the content manager of a local head-end at which a video asset request is received, in response to determining that said a requested video asset is stored remotely in the storage of a remote head-end, provided to said access network via an intervening server instructs the stream session manager of the local head-end to contact the content session manager of the remote head-end.

8. (currently amended) The apparatus of claim 7, wherein said stream the content session manager of the remote head-end identifies the requested video asset in the storage of the remote head-end, allocates bandwidth for transmitting the requested video asset, and, in response to a determination that the requested video asset is to be provided from the remote head-end to the requesting subscriber equipment via the local head-end, notifies the server of the remote head-end to transmit the requested causes transmission of said video asset across said access network to said subscriber equipment to the local head-end using the inter-server network.

Claims 9-18 (cancelled)

19. (currently amended) In an interactive information distribution system comprising a plurality of ~~servers~~ head-ends coupled to ~~respective~~ subscriber equipment, each of said ~~the servers~~ head-ends comprising a server, a storage, and a manager, each of the storages having a primary storage partition for storing a ~~first portion of~~ frequently requested video assets and a secondary storage partition for storing at least ~~some of a~~ remaining portion of said infrequently requested video assets, said ~~the servers~~ head-ends providing video asset migration between head-ends and providing video assets to respective subscriber equipment in response to subscriber requests, a method comprising the ~~steps of~~:

determining an asset request rate for each of said ~~the~~ video assets stored in each ~~server~~ head-end;

comparing said ~~the~~ determined asset request rates with respective threshold rates of each of the video assets;

in ~~the case of~~ response to an infrequently requested video assets asset stored on a secondary partition having a request rate exceeding said respective threshold rate becoming a frequently requested video asset, selecting ones of the head-ends to store the frequently requested video asset and migrating said ~~the~~ video assets asset stored on said ~~the~~ secondary storage partition to [[a]] the selected ones of the head-ends for storage in the corresponding primary storage partition partitions;

wherein in the case of said determined asset request rate for in response to a frequently requested video assets asset stored in a primary storage partition ~~being below a respective threshold rate~~ becoming an infrequently requested video asset, selecting one of the head-ends to store the infrequently requested video asset and migrating said ~~the~~ video assets asset ~~from stored on said the primary storage partition~~ to [[a]] the selected one of the head-ends for storage in the corresponding secondary storage partition; and

~~dividing and selectively distributing said video assets below said respective threshold rate amongst said secondary partitions of said plurality of servers.~~

20. (cancelled)

21. (currently amended) The method of claim ~~[[20]]~~ 19, further comprising: the step of
for each infrequently requested video asset that becomes a frequently requested
video asset, removing the infrequently requested video asset from the secondary
storage partition; and

for each frequently requested video asset that becomes an infrequently
requested video asset, removing duplicates of said the infrequently requested video
assets from each of said the primary storage partitions of the head-ends on which the
frequently requested video asset was stored.

22. (currently amended) The method of claim ~~[[20]]~~ 19, further comprising the steps
of:

receiving, at one of the head-ends, a request for a video asset;

identifying a server head-end having a primary partition storing [[a]] the
requested video asset, wherein the head-end comprises one of the local head-end at
which the video asset request is received or one of the other head-ends remote from
the head-end at which the video asset request is received;

causing said the identified server head-end storing said requested video asset to
begin providing said the requested video asset; and

transmitting said the requested video asset through an access network to said
the subscriber equipment initiating said the video asset request.

23. (currently amended) The method of claim 22, wherein, when said the identified
server head-end is the local head-end coupled directly to said the requesting subscriber
equipment, the local head-end provides the requested video asset to the requesting
subscriber equipment via the access network.

24. (currently amended) The method of claim 23, wherein, when said the identified
server head-end is one of the remote head-ends coupled to said requesting subscriber
via an intervening server, the local head-end requests the requested video asset from
the remote head-end and the remote head-end provides the requested video asset to

~~the local head-end said identified server communicating with said intervening server via an inter-server network.~~

25. (New) In an interactive information distribution system including a network of provider equipment and subscriber equipment, apparatus comprising:

a plurality of head-ends coupled to subscriber equipment via an access network, the head-ends in communication with each other via an inter-server network, each of the head-ends comprising:

a server for distributing requested video assets to requesting subscriber equipment;

a storage having a primary storage partition for storing frequently requested video assets and a secondary storage partition for storing infrequently requested video assets selectively distributed amongst the head-ends; and

a manager for controlling processing of video asset requests from subscriber equipment and distribution of video assets to requesting subscriber equipment, wherein the manager comprises:

a content manager for receiving a request for a video asset from requesting subscriber equipment and determining whether the requested video asset is stored locally in the storage of that head-end or stored remotely in the storage of a remote head-end; and

a stream session manager for directing the local server to distribute requested video assets to the requesting subscriber equipment.

26. (New) The apparatus of claim 25, wherein the manager further comprises:

a content session manager for receiving asset requests forwarded from other ones of the head-ends, identifying and retrieving requested video assets requested by content managers of other ones of the head-ends, and providing requested video assets to the other ones of the head-ends.

27. (New) The apparatus of claim 26, wherein the content manager, in response to determining that the requested video asset is stored locally, notifies the stream session

manager to deliver the requested video asset to the local server for transmission by the local server to the requesting subscriber equipment.

28. (New) The apparatus of claim 26, wherein the content manager, in response to determining that the requested video asset is stored remotely in the storage of a different head-end, instructs the stream session manager of the local head-end to contact the content session manager of the remote head-end.

29. (New) The apparatus of claim 28, wherein the content session manager of the remote head-end identifies the requested video asset in the storage of the remote head-end and allocates bandwidth for transmitting the requested video asset.

30. (New) The apparatus of claim 29, wherein, in response to a determination that the requested video asset is to be provided from the remote head-end to the requesting subscriber equipment via the local head-end, the content session manager of the remote head-end notifies the server of the remote head-end to transmit the requested video asset to the local head-end.

31. (New) The apparatus of claim 30, wherein, in response to a determination that the server of the local head-end is available to receive the requested video asset from the remote head-end, the server of the remote head-end streams the requested video asset to the local head-end over the inter-server network.

32. (New) The apparatus of claim 31, wherein the server of the local head-end received the requested video asset from the server of the remote head-end, wherein the received video asset is stored in the storage of the local head-end.

33. (New) The apparatus of claim 29, wherein, in response to a determination that the requested video asset is to be provided directly from the remote head-end to the requesting subscriber equipment, the content session manager of the remote head-end

requests the stream session manager of the remote head-end to allocate bandwidth for providing the requested video asset to the requesting subscriber equipment.

34. (New) The apparatus of claim 33, wherein the stream session manager of the remote head-end notifies the server of the remote head-end to stream the requested video asset to the requesting subscriber equipment.